Original

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
Amendment of the Commission's Rules to Establish Part 27, the Wireless Communications Service ("WCS")	)	GN Docket No. 96-228

COMMENTS OF THE MARKLE FOUNDATION

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SUMMARY

The Commission, following the Congressional directive, has soundly chosen to assign flexible use of the WCS spectrum through competitive bidding. The Commission must now choose a band plan that best promotes the public interest. We urge that the plan should permit the bidding process to proceed on a nationwide basis and encompass the available 30 MHz. For such a plan makes possible the provision of a nationwide wireless data service.

This service would afford great benefits to the national welfare, in promoting efficiencies so needed in this era of global competition, and to the quality of life in vital areas like education and health care.

The consortium that won the bidding process would be able to establish the nationwide wireless data system most efficiently because it could internalize all the technical and operating facets of the system. It could also conduct the disaggregation and partitioning process that would allow smaller entities to participate. In 1993 Congress directed the Commission to experiment with various approaches to the bidding process. The Commission has never tried the nationwide/disaggregation process. This is its opportunity to do so, and at the same time afford the opportunity for great benefit to the public interest.

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The Markle Foundation, a disinterested Section 501(c)(3) organization,[1] submits these comments in response to the Commission's Notice issued November 12, 1996. We urge that the band plan should permit the bidding process to proceed on a nationwide basis and encompass the available 30 MHz, so as to afford the opportunity for a nationwide wireless data service that would greatly serve the public interest. The grounds for this position follow.

I. The touchstone of Commission action remains the public interest standard.

The touchstone for all Commission action in the allocation and assignment area remains promoting "the larger and more effective use of radio in the public interest."[2] With the exception of areas like public safety and broadcasting, Congress and the Commission have determined that the approach of

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[1] The Foundation is interested in certain public service online activities and in promoting a nationwide e-mail system. The Foundation funded the 1995 Rand Corporation Report, Universal Access to E-Mail, and continues to be active in this area with new studies underway from RAND and Bellcore.

[2] Section 303(g) of the Communications Act of 1934, as amended; NBC v. U.S., 319 U.S. 190, 219 (1943).

competitive bidding plus flexible use best serves the public interest, because it insures that the spectrum will go to its highest valued use. Thus, in this instance, Congress directed the Commission to make the bands of frequencies available for competitive bidding and to seek to promote the most efficient use of the spectrum (see par. 2, Notice). We of course recognize that this is a most sound way of proceeding.

However, the competitive bidding/flexible use approach is not the end of the matter. The Commission must also adopt a band plan that best serves the public interest by promoting the most efficient and highest valued use. In many instances this can involve close and difficult decisions. In this case, there is the opportunity for a service that would markedly serve the national interest -- a nationwide wireless data service. The Commission therefore should not adopt a band plan that forecloses this opportunity. We develop below these two points -- the benefits of a nationwide wireless data service and the consequent need to adopt a band plan compatible with this opportunity.

II. <u>A nationwide wireless data service would greatly benefit the national interest.</u>

Computing technology continues to advance at its remarkable pace. The national interest requires that the enormous amounts of data thus generated be accessible and exchanged through efficient networks. And that in turn calls for digital networks specially designed (i.e., packet switched) with the architecture and bandwidth needed to handle high-speed, non-continuous data

transmissions. A nationwide wireless data network would provide a most efficient and much needed medium to meet this vital need. Further, such a network would be able to serve the mobile data user,[3] again an important need in light of the proliferation of laptop computers and other data devices.

The following are some obvious examples of the great benefit to be gained from the nationwide wireless data service:

(i) Industry efficiencies. Our standard of living -- indeed, our success in this era of global competition -- depends on improved productivity. We therefore need to have the information and telecom industries make a maximum contribution to productivity. A nationwide wireless system will surely contribute markedly in this respect, especially in light of its ability to facilitate mobility.

Of course, other developments can be helpful here.[4] The local exchange carriers appear to have slowed somewhat their broadband plans. Some cable television operators are moving forward to determine the technical and market feasibility of the cable modem. Efforts like these may contribute substantially in

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[3] The term, "mobile," as employed herein, is not meant to imply use to or from a moving vehicle or some similar endeavor of the cellular or PCS industries, but rather that the student, teacher, doctor, or health official, etc., can be in various places at different times within the institution; the wireless nature of the above network service would be particularly efficient in dealing with this type of mobility.

[4] In this connection, we note the pending proceeding in ET Docket No. 96-102, to provide for unlicensed NII/SUPERNet operations in the 5 GHz range. These operations, with their restricted range, would complement the nationwide wireless data and other networks.

the future in dealing with present "dirt road" problem (i.e., when the information superhighway enters the local arena). None will obviate the great desirability of the nationwide wireless data service. Section 254(b)(2) of the Telecom Act of 1996 states that "[a]ccess to advanced telecommunications and information services should be provided to all regions of the Nation." The provision of the nationwide wireless data service would be extraordinarily helpful in that regard.

(2) Advancing educational interests. The 1996 Act is also in point on this score. Thus, Section 254(h)(2)(A) directs the Commission to establish rules "...to enhance, to the extent technically and economically reasonable, access to advanced telecommunications and information services for all public and nonprofit elementary and secondary school classrooms, health care providers, and libraries..." In the recent Recommended Decision of the Joint Board[5] proposing to implement this important aspect of universal service, the Board relied upon the following Congressional explanatory statement (par. 438):

> For example, the Commission could determine that telecommunications and information services that constitute universal service for classrooms and libraries shall include dedicated data links and the ability to obtain access to educational materials, research information, statistics, information on Government services, reports developed by Federal, State, and local governments, and information services which can be carried over the Internet.

Clearly, a nationwide wireless data service would make an

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[5] CC Docket No. 96-45, released November 8, 1996.

outstanding contribution to achievement of the Congressional goal of helping to "...open new worlds of knowledge, learning, and education to all Americans, rich and poor, rural and urban ... via schools and libraries" (id., again quoting the Congressional explanatory statement). It would be available efficiently to all regions. It would alleviate the "inside wiring" problem. It would be most helpful in connecting schools, both locally and statewide, for distance learning. It would provide the great flexibility needed within schools to deal with the high mobility of the present and future student body (see fn. 3).

(iii) Promoting health care efficiencies. As noted, the 1996 Act seeks to promote the availability of advanced telecom services to health care providers, with particular focus on rural areas (see Section 254(h)(1)(A)). The nationwide wireless data system can contribute greatly to meeting this purpose. It can provide real time access to patient data such as records, charts and with compression, possibly X-ray, MRI images, and patient appearance, either at a distance so experts can give their advice or within the hospital. It can thus enable sounder and more efficient diagnosis of difficult cases and afford a cost-effective addition to health care. It might also reduce expenses by making home care safer and much more effective.

(iv) Facilitating a nationwide E-Mail system. As stated, the Markle Foundation funded a 1995 Rand Report analyzing the advantages of a nationwide E-mail system, its possible evolution and various problems associated with such a system. We will not

repeat that analysis here.[6] We would refer the Commission particularly to Chapter 5, "Civic Networks: Social Benefits of On-Line Communities." Civic networks use network technology to serve public interests and increase public access to information, with most aiming to reach underserved populations. The chapter studies five such networks, The Public Electronic Network, Santa Monica; the Seattle Community Network; the Playing to Win Network, Boston; LatinoNet, San Francisco; and the Blacksburg Electronic Village. The chapter concludes (at 146-48) that there are benefits to the broader U.S. society; that the civic networks "... can support interpersonal relationship and facilitate the social integration of otherwise marginalized groups"; that "[f]acilitating access to information on ... education and employment opportunities should benefit traditionally disadvantaged groups ... [and] have the effect of 'leveling the playing field'"; that ... "community-based organizations that typically operate under severe human, financial, and technical constraints are starting to use electronic networks to share ideas, solve problems, conserve resources, and ultimately sustain viability."

Because "electronic mail is the critical first entry point to participating in electronic communities for the majority of individuals" (id.), it serves the public interest to facilitate a

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[6] A copy of the report was sent to all the pertinent Commission offices, and we would again distribute the report to any requesting Commission office. We shall of course also make available further studies on this subject. See fn. 1, supra.

nationwide system of such mail. The nationwide wireless service would be a powerful catalyst to effect such usage.

The foregoing are just a few examples of the great benefits to be obtained from the nationwide wireless service. Before turning to the band plan, we discuss two other points as to the service.

First, consideration of a nationwide wireless date service comes at a particularly opportune time. The local exchange carriers are now seeking to shift part of the interstate access cost burden to Internet service providers. Thus, Mr. Raymond Smith, the President of Bell Atlantic, recently stated that "due to the rise of the Internet, Bell Atlantic could face 100-fold increases in demand for transmission capacity to homes and businesses over the next 10 years, and 'somebody is going to have to pay for it.'"[7] Whatever the merits of this argument, a nationwide wireless service would go a long way to alleviating the issue: There would be available a high speed, packet switched data network, and this increasing stream of data, when deployed over that network, would no longer tie up local exchange carrier networks designed for voice.

In the same interview, Mr. Smith objected to the proposed

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[7] The Washington Post, D1-2, November 23, 1996 ("Bell Atlantic Balks at Internet Plan"). A group from computer and information service industries strongly oppose this claim, arguing that it is "hype" (id.) and that the telcos "want to charge us now instead of first upgrading to data-friendly packet switching technology" and then recovering their costs. Telecommunications Reports, November 18, 1006, at 29-30 ("Group Forms to Lobby against Telco Efforts to Levy Access Fees on Internet Service Providers").

universal service plan "for a new nationwide program to wire schools and libraries to the Internet," arguing that computer and software companies should also contribute. Whatever the merits of that objection, a nationwide wireless service provided by a consortium of computer and software companies, which put at risk their investment funds, would be making a major contribution to this universal service goal.

Finally, we point out that it is important to obtain the above benefits as quickly as possible. The nationwide wireless data plan would do that. For the consortium that won the bidding process would be in position to operate most efficiently and quickly. The entity could adopt its own standards, internalize all operating facets, including as to equipment, and thus be a "super" band manager for the system. It would also be the band manager to decide if and how to disaggregate and partition the system (pars. 27-29, Notice).

III. <u>The band plan for the competitive bidding process should accommodate the opportunity for the nationwide wireless data service.</u>

In light of the great benefits that would flow to the nation (Point II), it follows that the band plan for the competitive bidding process should accommodate the opportunity for the nationwide wireless data system. This means in turn that the service area should be nationwide (par. 9, Notice) and that 30

MHz of spectrum is the most suitable amount (par. 11, Notice)[8].

What is alarming is that arguments against nationwide licensing are being advanced to the Commission. Thus, the Personal Communications Industry Association (PCIA) is urging that rather than employing nationwide licensing of the 30 MHz, it should be parcelled out in small "slivers", both geographically and as to the amount of spectrum.[9] Because the transactional costs and difficulties in trying to put together a nationwide system in such circumstance are very high, it would as a practical matter foreclose the opportunity for the nationwide wireless data service.

We have shown that such foreclosure would be inconsistent with the public interest standard, the touchstone of Commission action. We also argue that it would violate Section 706 of the 1996 Act. The Commission is there directed to encourage the deployment of advanced telecom capabilities (defined neutrally as any transmission technology) to all Americans, including in particular elementary and secondary schools and classrooms, through its regulatory methods, including those "... that remove barriers to infrastructure investment." But if the Commission

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[8] The 30 MHz might be broken into two segments of 15 MHz, and it would then be left to the market (the competitive bidding process) to determine whether these segments are paired or unpaired as to service.

[9] In a Statement by Jay Kitchen, released October 31, 1996, PCIA asserts: "Any talk of a national license should be shot down. New entrants who have spent time and money to build out their systems nationwide will be hurt, spectrum caps will prevent many players from being able to participate and it would slam the door on small providers..."

acquiesces to the PICA argument, instead of taking action "to accelerate the deployment of [advanced] capability by removing barriers to infrastructure investment and by promoting competition in the telecommunications market," it would have improperly placed a large barrier to such investment and competition.

We would also point out the fallacy of the PICA argument. In the past, the Commission has been criticized that acting under the public interest standard, it has delayed new service in the broadcast area because of the objections of broadcasters that such new nationwide satellite service would jeopardize the financial viability of local broadcast service. The flexibility/competitive bidding process, as utilized in its areas where subscribers are charged a fee, was supposed to obviate this problem by insuring that the license went to the highest valued use. But if the PICA argument is given weight, the government, not the market, will be determining how many services of a particular nature can be economically justified. The Commission should recall that it went through this process under the infamous Carroll doctrine in the broadcast field, where it tried to determine how many broadcast services should be permitted in a locality, without all of them so suffering financially that their ability to provide public service would be undermined. The Commission found the Carroll exercise futile and stultifying, and

abandoned it entirely.[10] PICA is unmistakably asking the Commission to adopt its equivalent in the competitive process field -- to determine when there is too much competition in some sector and thus new competitors should be fenced out. The Commission should emphatically decline to go down that road again. Gosplan is dead.

As to the argument that this will slam the door on smaller entities, the short answer is the disaggregation and partitioning process. As the Commission stated (par. 27, Notice), this process would "...provide a means to overcome entry barriers through creation of smaller licenses that require less capital, thereby facilitating greater participation by smaller entities, such as small business, rural telephone companies and businesses owned by minorities and women..."

In its 1993 auction authorization, Congress suggested that the Commission experiment with various forms of licensing. The Commission has never utilized the nationwide licensing form for broadband service, with disaggregation and partitioning. It is time to seize the opportunity to do so.

CONCLUSION

We stress that in so strongly advocating the desirability of a nationwide wireless data service, we have not requested that the Commission abandon the competitive bidding/flexibility process. We recognize the soundness of that process, and that

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[10] See Policies Regarding Detrimental Effects of Proposed New Broadcast Stations on Existing Stations, 3 FCC Rcd 638 (1988).

only the market, in terms of its investment choices, can give the answer whether such a nationwide service is the higher valued use and thus economically feasible. What we have argued for here is that the Commission should keep open the opportunity for such a service by adopting a band plan that does accommodate its selection in the flexible auction process. Failure to do so would disserve the public interest and the specific injunction of the 1996 Act.

Respectfully submitted,

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